

REMARKS

The present Amendment is in response to the Office Action mailed February 21, 2007. Claims 1, and 3-5 are amended and claims 1-10 remain pending in view of the above amendments.

Please note that the following remarks are not intended to be an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Rather, the distinctions identified and discussed below are presented solely by way of example to illustrate some of the differences between the claimed invention and the cited references. Reconsideration of the application is respectfully requested in view of the above amendments to the claims and the following remarks. For the Examiner's convenience and reference, Applicant's remarks are presented in the order in which the corresponding issues were raised in the Office Action.

Claim Objections

The Examiner objected to claim 1 because of an informality. Claim 1 has been amended to overcome the objection as required by the Examiner.

Rejection Under 35 U.S.C. § 112

The Examiner rejected claims 1-10 under 35 U.S.C. § 112, Second Paragraph for indefiniteness for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner notes that the limitation "the other end" does not have sufficient antecedent bases. In response, the limitation "the other end" has been replaced with "a second end". Applicant respectfully requests that the rejection be withdrawn.

Rejections Under 35 U.S.C. §102

Claims 1, 3, 4, and 6 were rejected as being anticipated by JP2001-076771 (JP '771). Because JP '771 does not teach or suggest each and every element of the rejected claims, Applicants respectfully traverse this rejection in view of the following remarks.

Claim 1 has been amended to recite a heat pipe having a first end that is thermally connected to a downstream side of the battery pack in a flow direction of the cooling medium and a second end. Claim 1 also recites an external cooling medium path formed outside the

battery pack, wherein the second end of the heat pipe is exposed in the external cooling medium path.

These elements, among others, are not disclosed by JP '771. Instead, JP '771 discloses a heat pipe 5 arranged in parallel along the longitudinal direction of the cylinder cell module 1 accommodated in the cylinder 3a. For example, Figure 3 of JP '771 illustrates that the ends of the heat pipes 5 and 6 are not thermally connected to a downstream side of the battery pack in a flow direction of the cooling medium. Accordingly, although the heat pipe 5 may be thermally connected to the whole the cylinder cell module 1, the heat pipe 5 does not have a first end thermally connected to a downstream side of the battery pack in a flow direction of the cooling medium as recited in claim 1.

Because JP '771 fails to teach or suggest each an every limitation of the rejected claims, Applicant respectfully submits that the claims rejected under 35 U.S.C. § 102 are not anticipated by JP '771.

Rejection Under 35 U.S.C. § 103

The Office Action rejected claim 1-4 and 6-7 under 35 U.S.C. § 103 as being unpatentable over JP 07-014616 (JP '616) in view of JP '771. Applicants respectfully traverse at least because the cited art fails to teach or suggest each and every element of the rejected claims.

Neither JP '61 nor JP '771 discloses the heat pipe having a first end that is thermally connected to a downstream side of the battery pack in a flow direction of the cooling medium and a second end, and the external cooling medium path formed outside the battery pack, wherein the second end of the heat pipe is exposed in the external cooling medium path, as recited in amended claim 1.

Rather, JP '616 discloses heat pipes 6, each assisting in the cooling of respective adjacent cells 2. However, JP '616 does not disclose the location of the battery pack 1 where the end of each of the heat pipe 6 should be connected. As discussed above, JP '771 similarly fails to teach or suggest that the first end of the heat pipe is thermally connected to a downstream side of the battery pack in a flow direction of the cooling medium.

Accordingly, even if JP '616 and JP '771 are combined, the recited elements of claim 1 are not achieved. Further, the combination does not have the advantage of cooling the downstream side of the battery pack in a flow direction where cooling performance may be lowered, via the heat pipe to uniformly cool the entire battery pack. Accordingly, Applicant respectfully submits that claims 1-4 and 6-7 are not unpatentable over JP '616 in view of JP '77a.

Allowed Subject Matter

The Examiner's indication that claims 5 and 8-10 would be allowable is appreciated. Applicant thanks the Examiner for the careful review of these claims.

The Applicant's submit the following comments concerning the Examiner's statements of reasons for the indication of allowable subject matter in the Office Action. Applicant agrees with the Examiner that the claimed invention is patentable over the prior art, but respectfully disagrees with the Examiners statement of reasons for allowance as set forth in Office Action. Applicant submits that it is the claim as a whole, rather than any particular limitation, that makes each of the claims allowable. No single limitation should be construed as the reason for allowance of a claim because it is each of the elements of the claim that makes it allowable. Therefore, Applicant's do not concede that the reasons for allowable subject matter given by the Examiner are the only reasons that make, or would make, the claims allowable and do not make any admission or concession concerning the Examiner's statement in the Office Action.

Conclusion

In view of the foregoing, Applicants believe the claims as amended are in allowable form. In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, or which may be overcome by an Examiner's Amendment, the Examiner is requested to contact the undersigned attorney.

Dated this 21st day of May, 2007.

Respectfully submitted,

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